

Message

From: Marsh, Karen [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=03408BEA5D5B4030BE80FA390ED47026-MARSH, KARE]
Sent: 7/11/2018 2:31:10 PM
To: Dana Wood [DANA.WOOD@BPX.COM]
Subject: RE: OGI with Drones

Hi Dana,

As long as you have line of sight on all of the components, drone-mounted OGI can be used. Hope this helps.

Karen

Karen R. Marsh, PE
US EPA, OAQPS, Sectors Policies and Programs Division
Fuels and Incineration Group
109 TW Alexander Drive, Mail Code E143-05
Research Triangle Park, NC 27711
Direct: (919) 541-1065; email: marsh.karen@epa.gov

From: Dana Wood [mailto:DANA.WOOD@BPX.COM]
Sent: Thursday, July 05, 2018 1:56 PM
To: Marsh, Karen <Marsh.Karen@epa.gov>
Subject: RE: OGI with Drones

Can you use a drone if it does have line a sight of all the components (i.e. not located in a separator cabinet)?

*Dana Wood, PE
Senior Air Advisor
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dana.wood@bpx.com*

From: Marsh, Karen [mailto:Marsh.Karen@epa.gov]
Sent: Thursday, July 05, 2018 11:46 AM
To: Dana Wood
Subject: RE: OGI with Drones

Hi Dana,

I checked around with a couple folks on your questions. Regarding using a drone with OGI, the current wording of the reg text does not appear to allow this because we require that you can have line of sight on each individual component. It may be something we could look at through an AMEL or other mechanism but on its own, I'm not sure there is a path forward.

We do not publish a list of cameras that meet the specifications.

Karen

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From: Dana Wood [<mailto:DANA.WOOD@BPX.COM>]
Sent: Tuesday, July 03, 2018 8:58 AM
To: Marsh, Karen <Marsh.Karen@epa.gov>
Subject: RE: OGI with Drones

Dear Karen,

I had another question for you I forgot earlier. Does EPA have a list of camera's that meet OOOOa's requirements?

Sincerely,
Dana Wood

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From: Dana Wood
Sent: Tuesday, July 03, 2018 7:37 AM
To: 'Marsh, Karen'; Wood, Dana A.
Subject: RE: OGI with Drones

Dear Karen,

I was wondering if you were able to get a response to whether we can inspect from a drone with the optical gas imaging camera for equipment inside cabinets by checking the vent port and around the door for leaks and if gas seen venting from the cabinet, an operator inspects the cabinet for leaks with a hand held optical gas imaging camera?

Sincerely,
Dana Wood

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From: Marsh, Karen [<mailto:Marsh.Karen@epa.gov>]
Sent: Friday, April 27, 2018 8:31 AM
To: Wood, Dana A.
Subject: RE: OGI with Drones

Hi Dana,

Yes, this is consistent with my notes. I hope to get you a response on the second point next week.

Karen

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From: Wood, Dana A. [<mailto:Dana.Wood@bp.com>]
Sent: Tuesday, April 24, 2018 3:12 PM
To: Marsh, Karen <Marsh.Karen@epa.gov>
Subject: OGI with Drones

Dear Karen,

Thank you so much for your time today! I greatly appreciated it! In summary of our discussion I captured:

- We do not need to submit an application under 60.5398a if we can inspect all fugitive components with an optical gas imaging camera on a drone meeting 40 CFR 60.5397a for NSPS OOOOa.
- You will check with others to see if we can inspect from a drone with the optical gas imaging camera for equipment inside cabinets by checking the vent port and around the door for leaks and if gas seen venting from the cabinet, an operator inspects the cabinet for leaks with a hand held optical gas imaging camera.
- Utilizing just TDLAS on a drone would require approval under 40 CFR 60.5398a to use for NSPS OOOOa inspections as an alternative method.

Let me know if I captured any of the above incorrectly.

We are looking at the potential use of drones from both the perspective of compliance options for NSPS OOOOa and for getting leak reduction credit under the GHG reporting Rule for voluntary inspections that meet the requirements of NSPS OOOOa per 40 CFR 98.233(q)(1)(iii) and (iv). We are also considering if for compliance with a future existing source performance standard. Our discussion today was very helpful for me to understand what analysis and steps we need to take to advance our trial of using drones for leak detection. Thank you so much!!!

Sincerely,
Dana Wood

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